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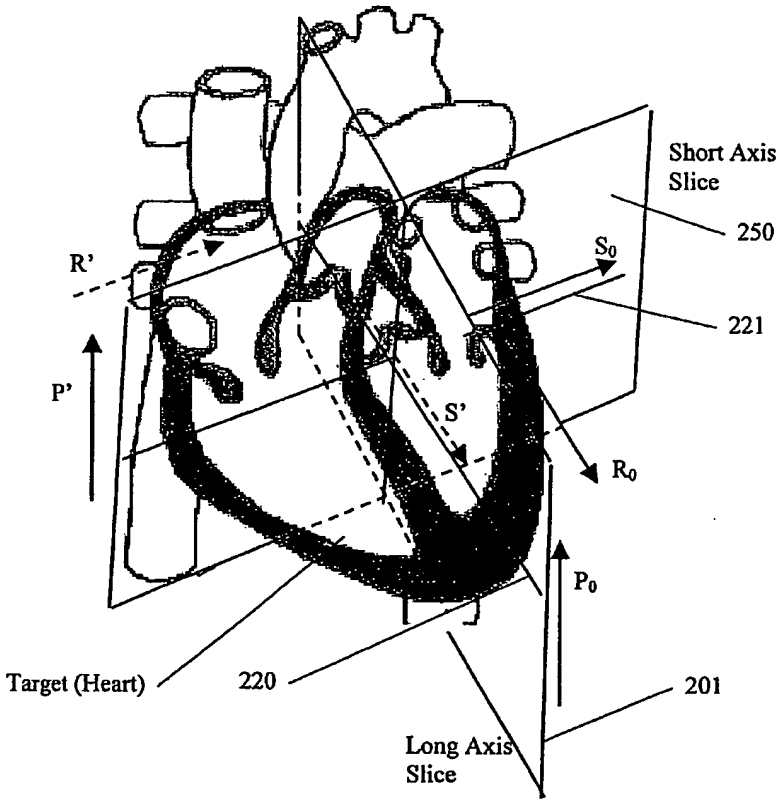
(54) Title: METHOD, SYSTEM, STORAGE MEDIUM AND SOFTWARE ARRANGEMENT FOR RADIAL PRESCRIPTION OF LONG-AXIS SLICES IN MAGNETIC RESONANCE IMAGING EXAMINATIONS



(57) Abstract: A method, system, and software arrangement for automatically prescribing long-axis magnetic resonance imaging ("MRI") slices of a target are provided. An MRI image is captured along a short-axis slice of the target. Vectorial components, including slice selection, phase-encoding, and frequency-encoding vectors, are extracted from the short-axis slice. Vectorial components are established for a long-axis slice using the vectorial components of the short-axis slice, by transposing the slice-selection and frequency-encoding vectors. A plurality of long-axis slice planes are defined in a manner positioned relative to the long axis slice, rotating about a long axis in a direction of a long-axis frequency encoding vector. In one exemplary embodiment, frequency and phase shifts are established for each of the long-axis slices, for use in RF transmitting and receiving.

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